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ABSTRACT

The popular view that children have an advantage in learning a second language has considerable support in research, although it is not uncontested. One approach proposes that the child possesses a unique capacity for language that the adult no longer has. Another view argues that the child's brain is more flexible. A third approach assumes that language acquisition is innately determined and depends on some necessary neurological factors and unspecified minimum linguistic input during a critical period of brain lateralization of language specialization. Some recent research on the relationship of age differences and second language acquisition among children and between children and adults refutes the generalized early sensitivity hypotheses. Some of the age controversy also rests in methodological questions. In addition to physiological and age-related factors, the elements of motivation, attitude, and social-psychological distance are very important, the last being especially important in acquisition of phonology and eventual overall proficiency. Pragmatics and semantics may also provide some explanation for early sensitivity, including the idea that the communicative demands on adults are greater than they are for children. (MSE)

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CHILD VS. ADULT IN SECOND LANGUAGE ACQUISITION: SOME REFLECTIONS

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One of the more controversial issues in recent research on second language acquisition relates to the question of age, whether age confers an advantage or a disadvantage in the acquisition of a second language; whether the speed at which children acquire a second language is greater than that of adults; and whether the eventual level of attainment is higher for children than for adults. In other words, research has focussed mainly on the relationship between age, rate, and eventual attainment in second language acquisition. The current, popularly-accepted view is that youth has a distinct advantage in learning a second language. Though this popular belief finds considerable support from a large number of 'scientific' and professional studies, it is by no means an uncontested one.

It is my purpose in this paper to present a review of studies which deal with the problem of age in second language acquisition, and, where possible, comment on the relative strengths and weaknesses of the studies. I shall also give reasons for my agreement or disagreement with the conclusions of the studies that I have considered.

The ease and skill with which a child acquires a second language, individual differences notwithstanding, seldom leave an observer unimpressed. If the observer happens to be the parent, then the child's second language feats are often reported to be phenomenal. Parental evidence may perhaps be discounted on the grounds that "parental pride" may often magnify the real second language acquisition of a child (Snow:1983). However, Chomsky (1965) and other proponents of the transformational grammar school were so impressed by the child's ease of acquiring a second language that they could only explain the phenomenon in terms of a biologically-triggered behavior that can only occur at a definite point of development. According to this view, the child possesses a unique capacity for language (a "Language Acquisition Device" or LAD) that the adult no longer possesses, and it is this capacity that enables the child to learn faster and more effectively than the adult. This view, in which a child is seen as inhabiting a kind of linguistic Eden where language acquisition is natural, easy, and spontaneous, has been formalized into what is known as the "critical period" hypothesis (McLaughlin 1978).

Penfield (Penfield and Roberts 1959) discussed the acquisition of language from a physiological point of view and presented con-

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siderable amount of anecdotal and impressionistic evidence that children under the age of nine acquire languages with greater facility than adults. Their simple argument is that the brain of a child is more flexible than that of an adult.

The behavioral evidence of the child's skill in acquiring languages - still mostly anecdotal and impressionistic - led Lenneberg to his classic work, Biological foundations of language (1967). Briefly, Lenneberg's assumption is that the acquisition of language is innately determined (somewhat like Chomsky's LAD) and that its acquisition is dependent upon both some necessary neurological factors and some unspecified minimum linguistic input. For Lenneberg, the critical period lasts from about age two to puberty; maturational factors make it virtually impossible to acquire language before the age of two, whereas the loss of cerebral plasticity cause by the completion of the development of cerebral dominance, or "lateralized specialization of the language function" makes language learning difficult after puberty.

To argue that the child acquires language easily and quickly during the critical period by capitalizing on the maturational processes is not necessarily a demonstration of the truth of the hypothesis. Therefore, the argument of speed and efficiency of acquisition presented by the Critical Period Hypothesis may be one that is based merely on anecdotal and impressionistic evidence, more a perception of a phenomenon unverified, or unverifiable, by empirical data. However, if a perception is common and compelling enough - I think that this one is - it cannot be cursorily dismissed and may point to complex processes involved in language learning, and to various other factors that contribute to the acquisition of a second language both among children and adults.

One reason which makes me uncomfortable with a neurological explanation of language acquisition is the absence of unanimity among its proponents as to the period of lateralization. For Lenneberg, lateralization is complete by puberty; for Krashen (1974) it is complete by the age of five; while for Kinsbourne (1979) and others it is complete by birth. Again, Seliger (1978) mentions studies that show that "infants with a mean age of 5.8 months have similar lateralized responses to both verbal and non-verbal stimuli as older children and adults" (74).

However, physiological explanations for phonological and morphological (inflexional) differences related to age are not without validity. Certainly, the Critical Period Hypothesis has been partially - though methodological difficulties are enormous - tested in studies of subjects who have been deprived of vital linguistic input during the critical maturation period. The most well-known study which puts a stamp of credibility on the Critical Period Hypothesis is the case of Genie (Fromkin, Krashen, Curtiss,

Rigler, and Rigler 1981). It may be interesting at this point to quote the authors of this study who confess that the "study of children reared under conditions of social and sensory deprivation represents a relatively inaccessible area of scientific research" (144).

Some of the more recent research on second language acquisition which focuses on age difference and difference in the degree of linguistic accomplishment are more relevant to our purposes here. There are observational studies and experimental studies in both natural environment and second and foreign language environment, based on actual diary studies and experiments with subjects of varied language background. Different foreign language tests and measures were used to ascertain the level of proficiency in a particular foreign language. Krashen, Long, and Scarcella (1979) made a review of these investigations and formulated a number of generalizations that are consistent with the results of recent research findings. For the sake of clarity, it would be better to use the language of the authors themselves:

> (1) Adults proceed through early stages of syntactic and morphological development faster than children(where time and exposure are held constant)
>
> (2) Older children acquire faster than younger children (again, in early stages of morphological and syntactic development where time and exposure are held constant)
>
> (3) Acquirers who begin natural exposure to second languages during childhood generally achieve higher second language proficiency than those beginning as adults.
>
> (Krashen, Long, Scarcella 1979:573)

The generalizations presented here are clearly contrary to the claims of the early sensitivity hypothesis that younger-is-better. What is important to note here is that a distinction is made between rate and eventual attainment; adults and older children learn a second language at a faster rate while children usually become superior in terms of ultimate attainment.

It would be tiresome and repetitious to consider in detail all the studies whose results contributed to the generalizations made above. Special mention may be made of the study by Snow and Hoefnagel-Hohle (1978). This study showed that while adults were superior to chidlren, they did not do better than the twelve to fifteen year olds. This result led Snow and Hoefnagel-Hohle to make the rather weak suggestion that the different sorts of linguistic experience the groups received affected the results of their study. The suggestion is clearly weak because the results of their study do

not strongly support their conclusion that older-is-better; but interestingly, the suggestion does indicate the importance of the varied nature of linguistic experience as a factor that ought to be considered in the assessment of linguistic competence.

Other studies that deserve mention are : Ervin-Tripp 1974; Ekstrand 1976; and Fathman 1976. All three studies demonstrate that older learners acquire a second language faster and better than younger learners. The results of Asher and Garcia (1969) also confirm the generalization that older-is-better in the rate of acquisition and have greater significance since they used carefully controlled input situations in which both older and younger learners received similar stimuli to the second language. Snow (1983) concludes from this that the "studies which are methodologically the best provide the strongest evidence for the superiority of older learners" (144).

There is, I think, scope for disagreement with this methodological question. If it is admitted that in spite of the varying degrees of difficulty involved in the acquisition of a second language, the process is a dynamic one, that it involves human beings and not rats, then the method of using carefully orchestrated input situations becomes unacceptable. It may be appropriate to examine enzymes and bacteria in tightly controlled situations, but to use such techniques indiscriminately in language-related experiments can often end up as exercises in linguistic pedantry.

The study of Neufeld which attempted to demonstrate that adults can acquire considerable phonological skill under certain controlled conditions also does not relate significantly to real language-acquisition situations. Snow (1983), however, feels that Neufeld has demonstrated

> in a very clever and ambitious study, that adults can achieve nativelike proficiency in pronunciation of a foreign language after about 18 hours of carefully programmed exposure to the language....Neufeld's study is very important in that it demonstrates that adults can achieve nativelike proficiency in pronunciation within a limited amount of time; it leaves open the question of why most adults learning a second language fail to do so.(144)

Perhaps most adults fail to do so because real-life learning does not give them "18 hours of carefully programmed exposure to the language." There is a lot of evidence that children excel in phonology and acquire a nativelike pronunciation of a second language, while adult language learners almost always retain a residue of foreign accent. According to Hatch (1983), pronunciation is an area where we continue to find differences with age. "I am

puzzled as to how to explain it. Intuitively, I buy the physiological explanations, rather than age-related factors, for this phenomenon" (197). Scovel (1969) provides convincing neurological arguments to explain why children are able to master the sound patterns of a second language with much greater ease than adults.

To sum up my position, I may state that while "older is better" in the rate of acquisition of morphology and syntax due to higher cognitive abilities, "younger is better" in pronunciation. However, the neurological explanation can only partially account for the child's superior ability in pronunciation.

Among other factors that can account for the difference in child-adult second language acquisition, motivation, attitude, and social-psychological distance are very important. I consider the last one particularly relevant in explaining the child's superiority in both phonology and eventual proficiency in second language acquisition. A child can integrate into the target language community more easily than an adult. Studies with immigrant families and their children have shown that a child is better able to cope with the new culture,people, and surroundings. While adults have been observed to suffer more from culture shock, culture stress, and language shock, children are invariably more venturesome, less self-conscious, more flexible and spontaneous. This could be explained in terms of "lowered inhibition, greater ego permeability, and greater emphatic capacity," to use some of Giora's (1972). It is the child's infantile characteristics that enable him to "partially and temporarily give up one's separateness of identity from the speakers of the target language" (Giora) that makes language learning and approximation to nativelike pronunciation easy. A child does not consciously have to practice to become one with the target language group; his ego development is not completed; the language boundaries of lexis,syntax, morphology, and phonology are also not very firm and hence permit greater permeability of the boundaries. His lowered inhibitions facilitate second language learning because, unlike an adult, "he is willing to use a word incorrectly and to form new expressions if necessary" (Schumann 1975:211).

Schumann's acculturation model presented briefly above has been questioned by many; Larsen-Freeman (1983) particularly questions Schumann's claim that "acculturation is <u>the</u> causal variable in second language acquisition" (7). Larsen-Freeman acknowledges the importance of affective variables in second language acquisition, but criticizes the exclusion of cognitive strategies from Schumann's model. "Social and psychological proximity may bring about exposure, but that's not the same as saying it causes L2 acquisition... Cognitive strategies do make a difference" (7). Though Schumann's affective variables are not so easily testable, they do have strong intuitive appeal.

The main thrust of some of the studies cited earlier in the paper (Snow and Hoefnagel-Hohle 1978; Asher and Garcia 1969; Ervin-Tripp 1974; Ekstrand 1976; and Fathman 1976) was to explode the popular myth that younger-is-better in second language acquisition and to demonstrate that older-is-better. Perhaps pragmatics and semantics can provide some explanation regarding the commonly preceived superiority of children in second language acquisition. Pragmatics

> deals with particular utterances in particular situations and is especially concerned with the various ways in which the many social contexts of language performance can influence interpretation. Pragmatics...looks at speech performance as primarily a social act ruled by various social conventions (Heatherington 1981:418).

Pragmatics can be compared to semantics which is concerned with the literal meaning of an utterance. Pragmatics clearly adds a dimension to the use of language which enhances our own understanding of the child's linguistic competence. By positing that the speech act is a social act bound by certain social conventions, pragmatics requires the existence of shared concerns and presuppositions between the speaker and the auditor.

Conversations between mothers and children become especially meaningful because of the mutuality involved in communication. In first language acquisition, semantics and pragmatics are discernible in as early as one and two-word utterance stages. Snow (1977), Keenan (1977), Peters (1977), and Scollon (1979) have all shown how a child approximates sentences and utterances of great complexity and length which become clear when correlated with a social setting and when used in referential context. These are not just words but sentences with full semantic components.

Similarly, in second language acquisition as well, children demonstrate what Hymes (1970) calls "communicative competence" even before they have mastered fully-developed grammatially-correct adult structures. This is one phenomenon that I noticed in my own son's acquisition of a second language. After going through the so-called "Silent Period" (this may account for the slower rate among child learners in the initial period) where the child internalizes the rules of the new language, the child displays competence in communicating effectively in social settings, namely school and playground. It is here, I think, that the conventional distinction between linguistic competence and communicative competence breaks down. There are, in Hymes' words, "rules of use without which the rules of grammar would be useless" (1970). A child makes full use of all the different rules of discourse and communiation incorporated in gestures, pauses, imitations, and intonations. One example of such use of communicative tactics to accomplish the various communicative goals is given below:

Paul: Oh-oh.

Jim: What?

Paul: This.(points to an ant)

Jim: It's an ant.

(Huang and Hatch 1970: 121)

The linguistic means at Paul's disposal are limited, but social context and accepted social conventions make communication possible. In contrast to the successful ways in which a child negotiates conversation, negotiation for the adults can be very difficult.

This probably explains why we expect less from children in terms of pure linguistic achievement. It has often been argues that communicative demands are greater for adults than for children, and that this difference in expectation points up the linguistic deficiencies of adults. As Snow has argues, "Adult second language speakers are forced into errors more severe and more striking than those typically made by children" (1983:147). This is probably quite true, but to make such comparisons to demonstrate the superior learning ability of adults is not relevant. The child does indeed inhabit a world that is less complex, different, and limited to the performance of social routines. Therefore, when a child utters memorized chunks such as "I'm fine," "Can I have some juice?" or "I want to watch TV," there is no need to underplay these linguistic expressions; they are relevant to the child's world and serve as effective means of communication.

In conclusion the question of age, rate, and eventual level of proficiency in second language acquisition is not one that can be easily resolved. I have attempted, within the limited scope of this paper, to consider some hypotheses and studies relevant to the topic. And if I have come any closer to a position on the question, it is probably a feeling that the child is the superior learner of a second language. Semantics and pragmatics, the scculturation model, and the critical period hypothesis have all contributed to different ways to reinforce this impression.

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